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The Brady Plan, the 1989 Mexican Debt Reduction Agreement, and Bank Stock Returns in the United States and Japan

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The menu approach to debt restructuring may benefit both the creditor banks and the debtor countries.

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This paper — a product of the Debt and International Finance Division, International Economics Department — is part of a larger effort in the department to understand commercial bank lending behavior. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Widhanaya Patrawimolpon, room N9-043, extension 37664 (November 1992, 26 pages).

Unal, Demirgüç-Kunt, and Leung investigate the impact of the "menu approach to debt rescheduling" on the market value of two major creditors: U.S. and Japanese banks. They try to understand how major creditor banks are affected by debt reschedulings and the menu choices they make, so that debt deals can be structured in a way that appeals to both creditors and debtor countries.

They measure the stock market's reaction to the announcement of the Brady Plan and the Mexican debt reduction agreement. The Brady Plan was implemented through the menu approach, which acknowledges creditor heterogeneity and provides financing packages that meet the country's financing requirements while still allowing the banks to reduce their exposure.

The Mexican agreement provides an opportunity to test the impact of the Brady Plan's implementation. By examining individual bank's menu choices, exposure levels, and the market's reaction, they explore whether banks were able to make optimal portfolio choices when confronted with the obligation to participate.

They show that stock prices for different groups of banks reacted quite differently to focal events. Among all banks, U.S. multinationals showed the strongest positive reaction to the Brady announcement and the Mexican agreement. U.S. non-multinationals do not appear to have been significantly affected by these international-debt-related events.

The reaction experienced by all Japanese banks was much weaker than that of U.S. multinationals and was negative for the Brady announcement and the initial Mexico announcement. These authors contend that the lack of a strong reaction was because of the Japanese banks' relatively low exposure to developing country risk. They see the negative market reaction as a reflection of the expectation that a U.S.-initiated debt reduction strategy would not be favorable for Japanese banks. Indeed, after the menu choices were announced, the market recognized that the Japanese banks were treated fairly and corrected itself.

They do not find that banks that made different choices were treated differently by the market, so banks were able to negotiate menu choices in their best interest and to make portfolio choices consistent with their business objectives.

The results here confirm that the menu approach to debt restructuring may benefit both the creditor banks and the debtor countries.

The Brady Plan, 1989 Mexican Debt-Reduction Agreement, and Bank Stock Returns in United States and Japan

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The Brady Plan, 1989 Mexican Debt Reduction Agreement and Bank Stock Returns in United States and Japan

I. Introduction

Previous research documents a significant negative impact of the international debt-crisis that was triggered by the Mexican debt moratorium of 1982 on the creditor banks in the U.S.[1] Studies that examine the effects of various proposals undertaken to ease the burden on U.S. creditor banks report significant positive security returns for these institutions. Three measures were subject to empirical investigation: The passage of the International Lending Supervision Act and the increase in the U.S. quota in the IMF in 1983, Federal Reserve's (Fed) amendment to Regulation K which allows creditor banks to make debt-equity swaps, and increases in loan loss reserves. [2] However, none of these measures affected the debt servicing capacity of the debtor countries. Hence, they lacked the ability to affect the risks the creditor banks face on their outstanding loans to developing countries.

The Brady Plan of 1989 is a significant exception. In his address to the Brookings Institution and the Bretton Woods Committee Conference on Third World debt on March 10, 1989, U.S. Secretary of the Treasury Nicholas Brady supported debt and debt-service reduction in addition to rescheduling of principal and extending new-money packages. The plan proposes the IMF and the World Bank allocate resources to encourage the reduction of debt burdens and interest payments by debtor countries. Funds obtained from these organizations will be used to enhance the creditworthiness of securities to be exchanged for commercial banks' existing loans.

A menu approach, which involves a two-step process, was adopted to implement the Brady Plan. First, a steering committee representing the creditor banks and the debtor country negotiated the contents of the menu to be offered to the creditor banks. Negotiations focused on the amount of discount to be applied to existing debt, and availability of new-money facilities. Once the menu was

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[1] Schoder and Vankudre (1986), Cornell and Shapiro (1986), Sachs and Huizinga (1987), Bruner and Simms (1987), Smirlock and Kaufold (1987), Musumeci and Sinkey (1990a), and Ozler (1990) focus on the market's reaction to the development of the debt crisis.

[2] Cornell, Landsman and Shapiro (1986), Billingsley and Lamy (1988), Eysell, Fraser and Rangan (1989), Madura and McDaniel (1989), Grammatikos and Saunders (1990), and Musumeci and Sinkey (1990b) study the impact of these measures on bank security returns.

approved and an initial accord was signed by both parties the next step constituted obtaining subscriptions from individual banks to the choices outlined in the menu. The creditor banks have the "obligation" to exchange their outstanding developing-country-debt with bonds at a discount or to lend new money or both. The banks effectively "forgive" a portion of the foreign debt if they choose not to give new money. However, in return, they receive bonds that are less risky than the country-debt since principal and interest payments would be secured by U.S. Treasury bonds. Funds required to purchase U.S. Treasury bonds come from international organizations.

This approach is a significant digression from concerted new-money packages or reschedulings where creditors negotiate with the debtor countries in syndicates and preserve the equal rankings of their claims. The menu approach acknowledges creditor heterogeneity, and provides financing packages that meet the country's financing requirements while still allowing the banks to reduce their exposure. The banks benefit because the lower debt burden for the debtor country has the potential to reduce the risks faced by creditor banks.

Mexico became the first country to sign a landmark debt package under the framework of the Brady initiative. Over 500 banks worldwide negotiated the terms of a menu to exchange their Mexican loans with enhanced bonds or increase their exposure to Mexico (by lending new money).[3] The deal covered about $48.9 billion of medium-term and long-term commercial bank debt. The banks had the option of providing new money equal to 25 percent of their exposure or convert their outstanding debt to bonds with either a reduced face value and market-based interest rate or the same face value but a reduced and fixed interest rate.

This paper's objective is to measure the stock market's reaction to the announcement of the Brady plan and the Mexican debt-reduction agreement. The market's reaction to the Brady announcement shows the expected effects of the "debt-forgiveness" plan on banks' profitability. On the other hand, Mexican agreement provides an opportunity to test the effect of the implementation of the Brady plan. Specifically, by examining individual banks' menu choices, exposure levels and market's

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[3] Following the Mexico agreement, Philippines, Costa Rica, Venezuela and Uruguay signed debt-reduction packages with their creditor banks in 1990. Brazil, Argentina, Poland, Ecuador and Nigeria are in the process of negotiating debt-reduction packages with their creditor banks.

reaction we can learn more about banks' risky asset choice decisions when confronted with the obligation to participate.

Our sample consists of U.S. and Japanese banks. We include Japanese banks to evaluate the differential effects of the events on a cross-country basis. Also, we examine the effect of a U.S. initiated debt-reduction strategy on Japanese banks because the menu choices offered to the creditor banks may have served U.S. bank interests best at the expense of Japanese and other banks. [4]

The paper is planned as follows: Section II provides a brief explanation of the Mexican financing package. Section III identifies event dates and data sources. Section IV develops hypotheses and explains the test design. Section V and VI present our findings for U.S. and Japanese banks, respectively. We conclude in Section VII.

II. An Example of a Menu Deal: The 1989 Mexican Financing Package.

The agreement between Mexico and the advisory committee announced on July 23, 1989 proposed three options to creditor banks. First, banks could swap their existing loans for 30-year Debt-Reduction Bonds (DRBs) at a discount to face value of 35 percent. These discount bonds carry an interest margin of 13/16 percentage point over the London Interbank Offered Rate (LIBOR). The second option banks had was to swap their existing loans with 30-year Debt-Service Reduction Bonds (DSRBs) with the same face value. These par bonds carry a below-market fixed interest rate of 6.25 percent. DRBs and DSRBs are also called "exit instruments." The final option banks had was to provide new loans over a four-year period equivalent to 25 percent of each bank's 1989 exposure, net of loans exchanged with the exit instruments. The new loans carry market rates and had an interest margin of 13/16 point over LIBOR. Given these three menu choices a creditor bank could set its new exposure level to Mexico within the range between 65 percent and 125 percent of its previous exposure.

The creditworthiness of exit bonds was enhanced by $5.6 billion of funds from the IMF, the

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[4] For example, the steering committee, which negotiated the Mexican menu choices, was headed by Citicorp and the U.S. banks constituted the majority.

World Bank, and the Japanese Export-Import Bank. Mexico contributed $1.6 billion for enhancement of the new instruments. This total $7.2 billion "official money" was used to purchase zero-coupon U.S. Treasury bonds to be pledged against the principal of both exit bonds and 18 months of interest payments on a rolling basis through an escrow account. During the first week in January, 1990 the U.S. Treasury issued 30-year zero-coupon bonds at an effective interest-rate of 7.925 percent.[5] Finally, on January 10, 1990 the Mexican finance ministry announced that banks accounting for 49 percent of the loans chose DRBs, 41 percent chose DSRBs and about 10 percent agreed to provide new money. On March 28, 1990 Mexican government issued $22.5 billion DSRBs, and $11.6 billion DRBs. The new money totalled $1.25 billion to be disbursed over the 1990-1992 period. The new loans carried no guarantees.

U.S. banks exchanged 58 percent of their outstanding debt for par bonds and 24 percent of their debt with discount bonds. The remainder of the outstanding debt constituted the base for the new money contributions. Japanese banks overwhelmingly chose the discount bonds and contributed no new money to the pack. They exchanged 18 percent of the existing exposure for par bonds and 81 percent for discount bonds. In an extensive report on recent debt-reduction agreements, Hay and Paul (1991) identify four major factors affecting the bank choices: (1) individual bank's expectations with respect to interest rates and currency values, (2) perceptions of underlying credit risk, (3) long-term business objectives and (4) regulatory and tax policy environment of the creditor bank's country. Interestingly, Hay and Paul conclude that "the decision of banks to participate in financing packages does not appear to have been significantly influenced by tax and regulatory policy."

III. Event Dates and Data

U.S Secretary of the Treasury Nicholas Brady made his speech on March 10, 1989 (Friday) which was covered in the business press on March 13. President Bush and Federal Reserve Chairman Alan Greenspan announced their support for the plan on March 15 and 17, respectively. Hence, we define our first event date as follows:

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[5] The Treasury coupon issues traded at about 8.05 percent on January 8, 1990.

Event 1 - The week ending March 17, 1989: Since the plan created considerable debate in the press during the week following the announcement, we focus on bank stock returns during the week ending March 17, 1989 to capture the impact of the Brady announcement.

The second focal event is the Mexican agreement. The conclusion of the negotiations of the Mexico agreement took roughly one year and numerous obstacles had to be resolved.[6] First, consistent with the Brady plan, on March 30, 1989 Mexico proposed creditor banks to either provide it with new loans or reduce its debt in exchange for more creditworthy securities. This proposal effectively started the negotiations and confirmed that Mexico's debt-reduction agreement would be the first test-case of the Brady Plan. Second, the IMF and the World Bank announced the details of this support to Mexico for debt reduction purposes. Next, Mexico negotiated the menu choices to be offered to creditor banks such as the discount to be applicable to the Mexico debt, the interest-rate, and the amount of new money, with a 15-member bank advisory committee representing more than 500 commercial creditor banks. On July 23, 1989 (Sunday) the agreement on the menu choices was announced. Following this initial accord, Mexican government carried out negotiations with the individual banks to obtain their subscription to one of (or a combination of) the choices.

Given this process we focus on the following dates to measure the impact of the Mexico agreement on bank stockholders' wealth:

Event 2 - March 30, 1989: We analyze bank stock returns on this date to measure the market's reaction to the beginning of negotiations between Mexico and creditor banks.

Event 3 - July 24, 1989: The market's reaction on this date may reflect the impact of the initial accord signed between Mexico and creditor banks. On this date the three menu choices to be offered to the creditor banks were announced.

We conduct our analysis using a sample of twenty U.S. and twenty-one Japanese banks that signed agreements with Mexico. Daily returns for each sample U.S. bank and the NYSE and AMEX

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[6] To identify news items pertaining to the development of the Mexican agreement we searched relevant sections of the *Wall Street Journal Index, Financial Times* and *American Banker* for 1989. A chronology of all news items that appeared in these sources is available from the authors upon request.

Composite Index are obtained from the tapes constructed by the Center for Research in Security Prices (CRSP) at the University of Chicago. For Japanese banks and the NIKKEI 500 index we could only obtain weekly returns from Nihon Keizai Shimbun America, Inc. The names of the U.S. and Japanese banks together with their exposure and option choices in the Mexican agreement are given in Table I. Option choice information is obtained from Citicorp. Developing country exposure information for U.S. and Japanese banks are obtained from Board of Governors of the Federal Reserve, (from the Freedom of Information Office), and International Bank Credit Analysis (IBCA), respectively.

IV. Hypotheses and Test Design

The Brady Plan and the subsequent debt-reduction agreements are often criticized on the grounds that the U.S. banks were forced into making sub-optimal decisions. A vivid example of such claims is a lead article by columnist Richard X. Bove of the American Banker where he argues that Treasury Secretary Nicholas Brady's debt reduction plan had a damaging impact on U.S. banks because they are forced to forgive a large portion of the debt-service payments. He writes "..because the U.S. government, in essence, cut a pact with the Latin American billionaires, on debt forgiveness, 50,000 United States bank employees lost their jobs."[7]

Exchanging one asset for another can effect bank value, if the new asset's market value is different than that of the original one. It can be argued that banks had the opportunity to have value-increasing swaps. First, the Brady plan proposes the use of official money to guarantee principal and interest payments on new bonds. Second, the new instruments (bonds as opposed to syndicated loans) may have lower credit risk. Since bonds are bearer instruments, the creditors are no longer necessarily a known group of banks. Anyone, including the debtor country institutions may end up holding them. This makes it difficult for the debtor country to seek rescheduling, increasing default costs. Also, the lower burden on the debtor country could reduce the risk faced by creditor banks on the remaining outstanding debt. Finally, the menu-choice allows banks to reshuffle their loan portfolio, to reduce or increase their exposure to developing countries based on their own individual risk perceptions. In

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[7] American Banker, March 31, 1992, p. 5.

addition, instruments can be tailored (through the menu approach) to suit the preferences of different groups of banks that operate under different regulatory and tax regimes. This flexibility may create added value.

To identify the stock market's evaluation of the impact of the Brady plan on bank profitability, we examine stock returns on our event dates. Consistent with the event-study literature on international debt crisis, we first test the *new-information hypothesis*. The premise is that in an efficient market new information is quickly reflected in security prices. U.S. banks are classified as being multinational (money center) or non-multinational banks. This classification has the advantage to observe differences between these two groups. Sinkey and Greenwalt (1991) provide evidence that loan-loss experience and risk taking behavior between "money center" banks and regional banks are different. Our list of multinational banks is the same as the list of money-center banks given in Sinkey and Greenwalt (1991). In addition, Schoder and Vankudre (1986) argue that this classification is superior to exposure level information to explain the stock price response of exposed banks. Table I shows that the average LDC debt-exposure of multinational banks is 163 percent of their book values. In contrast, this exposure ratio is 56 percent for the non-multinational group.

We use the seemingly unrelated regressions (SUR) approach to calculate abnormal returns for each bank, as in Smirlock and Kaufold (1987). In this method each bank stock's returns are time series stacked and system of equations are estimated simultaneously to allow for contemporaneous correlation among banks. The following system is estimated for the multinational and non-multinational bank groups separately using observations from the indicated sample periods:

$$\begin{aligned} R_{1t} &= \alpha_1 + \beta_1 R_{mt} + \gamma_1 D_t + \epsilon_{1t} \ , \\ R_{2t} &= \alpha_2 + \beta_2 R_{mt} + \gamma_2 D_t + \epsilon_{2t} \ , \\ &\vdots \\ R_{nt} &= \alpha_n + \beta_n R_{mt} + \gamma_n D_t + \epsilon_{nt} \ , \end{aligned} \qquad (1)$$

where R_{it} is the stock return of bank i on day t, R_{mt} is the return on the market index on day t, and D_t is a dummy variable equal to one on the event day and zero otherwise. The event term $\gamma_i D_t$ would

measure the price response (abnormal return) of bank stocks to the specified events.

The following hypothesis is tested for each of our three events using both multinational and non-multinational banks to examine the magnitude and significance of the information contents of the events:

HYPOTHESIS 1 (H1): The abnormal return on the event day for each sample bank equals zero.

$$(\gamma_1=\gamma_2= \ldots =\gamma_n = 0).$$

A related hypothesis is whether the price response is uniform across all sample banks. This is important because otherwise it can be argued that the market failed to distinguish among banks. Hence, the following null hypothesis is evaluated.

HYPOTHESIS 2 (H2): The abnormal returns on the event day are equal across all sample banks $(\gamma_1=\gamma_2= \ldots =\gamma_n)$.

If H1 is rejected, the next layer of tests focus on explaining the cross-sectional variation in abnormal returns. The issue is whether or not the market participants rewarded or penalized the banks in proportion to a firm-specific variable. Bruner and Simms (1987) describe this as the *rational-pricing* hypothesis which implies that the market was able to distinguish among the exposure levels of different banks and the response is proportional to exposure. An alternative hypothesis focuses on *investor-contagion*. Under this hypothesis, when the market responds to a common event like the Brady plan, it evaluates the impact without regard for the extent of individual banks' exposure levels. Hence, the response is not proportional across banks.

To test whether or not differences in abnormal returns are proportional to developing country debt exposure, the following system is estimated:

$$\begin{aligned} R_{1t} &= \alpha_1 + \beta_1 R_{mt} + \lambda_1 D_t EX_1 + e_{1t} , \\ R_{2t} &= \alpha_2 + \beta_2 R_{mt} + \lambda_2 D_t EX_2 + e_{2t} , \\ &\vdots \\ R_{nt} &= \alpha_n + \beta_n R_{mt} + \lambda_n D_t EX_n + e_{nt} , \end{aligned} \qquad (2)$$

where λ_i measures the exposure price-response relation and EX_i is the LDC debt exposure of bank i

calculated as book value of foreign loans as a percentage of book value of equity at the end of 1988.[8] As in Smirlock and Kaufold (1987) we test the following hypothesis:

HYPOTHESIS 3 (H3): The price-response parameters are equal across all banks

$$(\lambda_1=\lambda_2= \ldots =\lambda_n).$$

The price response parameter (λ) equals the abnormal return for a bank deflated by the exposure level. The test of equality of (λ) across all banks ($\lambda_1=\lambda_2= \ldots =\lambda_n$) provides a test of the rational pricing hypothesis. If λs are equal across banks, the abnormal returns vary across banks as a constant proportion of individual bank's exposure level. Whether or not the market has applied the same multiplier (the price) to the exposure level of each individual bank reflects the impact of the event.

Rejecting the null may pose problems. In the literature, this evidence is taken to support the investor-contagion hypothesis. However, rejecting proportionality in pricing may also be consistent with *heterogenous-creditor hypothesis*. James (1990) provides evidence to show that the value of developing country loans varies among commercial banks. He argues that the value of a loan to a particular country depends on the identity of the lender for three reasons. In debt restructuring some creditors may not be able to avoid forced lending. Also, ability to impose sanctions and bargaining with the developing country may differ across lenders. Finally, the government subsidies due to these loans may differ across banks. Hence, James' heterogenous-creditor hypothesis implies that price response may not be proportional to exposure. The market participants may very well be applying different multipliers (prices) to individual bank's exposure levels because the event in question may have a differential effect on the value of the loan portfolio.

Smirlock and Kaufold (1987) tests the rational-pricing hypothesis as a restriction on the system of equations given in (2). However, the equality of the price-response parameters (λs) is also tested using Ordinary Least Squares (OLS) estimate of the relation between abnormal returns and

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[8] We calculate EX_i using exposure of bank i to Mexico when we analyze the announcements relating to the Mexico agreement.

exposure levels.[9] The equation estimated is:

$$AR_i = c + dEX_i + e. \qquad (3)$$

A significant correlation between abnormal returns and exposure is taken to constitute evidence for rational-pricing.

This test is different than the design given in the SUR framework. In testing rational pricing using the SUR approach the researcher allows proportionality to be different for each bank. Deviation from proportionality can be due to for a number of possibilities. In contrast, when OLS is used, deviation from proportionality is restricted by the model specification. If there exists some covariance between abnormal returns and exposure levels we may obtain significant d, which may not imply that the constant applied to each bank is equal across banks. In OLS, the multiplier to be applied to exposure levels across banks (the slope coefficient) is by definition constant across observations. Then, given this assumption of constant pricing across banks, the investigation becomes whether or not high exposed banks show larger abnormal returns. Hence, this approach does not test proportionality in pricing and is not a direct test of rational pricing.[10] One can simply obtain significance by having a sample composed of one group of banks (such as multinationals) which react more to international events and another group (such as non-multinational banks) which show less reaction to such events.

V. Results for U.S. Banks

Our focal events occur in 1989. To put our specific events into broad perspective, it is instructive to consider a partial chronology of information events that might have proved relevant in 1989. In January, 1989, Federal reserve issued final guidelines to implement its risk-based capital requirements, which were in accordance with the guidelines established by the Basle Accord of 1988 requiring banks of twelve industrial countries to maintain a minimum capital to assets ratio of 8 percent.[11] Dealing with the move toward tougher capital standards was a major issue for U.S banks

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[9] Cornell and Shapiro (1986), Bruner and Simms (1987) and Musumeci and Sinkey (1990a) are examples.

[10] It is possible that the conclusions of the studies using equation 3 to test for rational pricing could be reversed if they had tested the hypothesis within the SUR framework.

[11] Eyssell and Arshadi (1990) examine the wealth effects of the Basle Accord.

as well as Japanese banks throughout the 1989. The Brady announcement and Mexican agreement were the highlights of the second quarter of 1989. In August, Congress passed the Financial Institutions Reform and Recovery Act and the third quarter also witnessed the emergence of the real estate problems for the banking industry.

These developments might jointly or individually have supported revised expectations large enough to induce a shift in the return-generating processes for deposit-institution stocks. Hence, we start our analysis by a specification check to test for parameter stability in our assumed return generating process, the market model, during 1989. Our objective is to identify regimes where the sensitivity of individual asset's returns to market returns (the beta coefficient) remain constant. We focus on two equally weighted portfolios constructed from multinational and non-multinational banks. Using Goldfeld and Quandt's switching regressions method (GQSRM), we find that the multinational portfolio's beta followed three regimes.[12] The switch from the first regime to the second occurred on April 7, 1989. The second switch is observed on November 22, 1989. For the non-multinational portfolio, we could uncover only one switch which is observed on November 27, 1989.

Our next step is to measure abnormal returns in the vicinity of the focal dates. To control for beta shifts in the estimation of abnormal returns we use sub-periods identified by the GQSRM. Events 1 and 2 fall within the first regime identified by the switching-regression. Hence, for the multinational banks we use a 70-day sample period covering December 28, 1988 to the start of the second regime (April 7, 1989) to test for stock price response to these events. For event 3, we use a 160-day sample period covering April 7, 1989 through the end of second regime (November 22, 1989). Since the non-multinational banks' only switch comes after the focal events, we use a 232-day sample period covering December 28, 1989 through November 26, 1989 (the switch date), to estimate the abnormal return for all three events.[13]

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[12] Kane and Unal (1988) and Unal (1989) provide extensive description of the method and its application to event studies.

[13] We replicated our estimates of abnormal returns for both group of banks using the full sample period of 1989. The results qualitatively remain unchanged. However, when we allow for beta changes our estimates of abnormal returns gain slightly more significance. Estimates of abnormal return where full 1989 observations are used (ignoring switches identified by the Goldfeld and Quandt method) are available from the authors.

The Brady Announcement: Table II, Panel A reports estimates of Equation 1 and related hypotheses tests for the multinational banks during the Brady announcement. Although the announcement is made on March 10, Table IV shows that we do not observe any significant market reaction before March 16 and 17 when the President's and Fed Chairman's support for the plan were announced. In other words, the market needed further official endorsement for the plan.

The coefficient γ, which captures the effect of the announcement, is positive and significant for all multinational banks over these two days. The cross-sectional mean of γ is 3.21 for March 16 and 3.67 for March 17 which suggests that an equally weighted portfolio of these bank stocks would have earned a 6.88 percent return over these two days. Both H1 and H2 are rejected indicating that Brady announcement caused multinational banks to experience a significant positive return and that this gain was not uniform across banks.

In contrast, Panel B shows that the event parameter γ is not significant for 9 out of 10 non-multinational banks on March 16 and none of them shows significance on March 17. Hence, we fail to reject H1 indicating that the Brady announcement had no impact on non-multinational banks.

This is consistent with the argument that multinationals, due to the nature of their business, are simply more sensitive to events with international repercussions. Also, despite the criticisms of the Brady plan we observe that the market participants treated the announcement as "good news", and one that can increase the profitability of the U.S. multinational banks.

We follow Smirlock and Kaufold (1987) and do a joint F-test of whether λs in equation 2 are jointly equal to one another. The last two columns in Panel A of Table IV provide estimates of λ. Hypothesis 3 is rejected for both dates indicating that the price response is not proportional to exposure.[14] We also combined the multinational and non-multinational banks and estimated λs and tested for equality. We again rejected the null.[15]

Before we rush and conclude that the results support the investor-contagion hypothesis we

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[14] Alternatively, we regressed abnormal returns on the exposure variable and obtained a significant positive relationship. However, as indicated above this approach does not constitute a test of rational pricing.

[15] Results can be obtained from the authors upon request.

allow for the heterogeneity among creditors. We estimate the following equation (t-values are in parentheses):

$$AR_i/EX_i = \underset{(9.0)}{.069} - \underset{(-5.4)}{.023}\ EX_i \qquad R^2 = 0.77$$

The slope coefficient is significant and negative implying that banks with low exposures have benefitted disproportionately to their exposure, i.e., they benefitted more than their more-exposed counterparts, which is possible if the more exposed banks are not getting the full benefit of the announcement, or alternatively, this full benefit is being offset by a "loss" caused by improved conditions generated by the Brady announcement. This observation is consistent with the argument that the highly exposed banks, which can be considered as "too-big-to-fail" banks, do not benefit as much from the Brady plan because they lose some deposit-insurance subsidy provided by the Federal Deposit Insurance Corporation (FDIC). The higher the subsidy a bank gets the less is the response to "good" news. Hence, banks that are not exposed as much, do not have much insurance subsidy to lose, they get the full benefit. In other words, the market is rationally pricing the impact, however, the overly exposed banks have something to lose when conditions improve in addition to gains created by the announcement.[16] Hence, rejecting the null is consistent with government subsidy aspect of the heterogenous-creditor hypothesis.

The Mexico Agreement: Table III shows the findings on our events 2 and 3. Estimates of beta coefficients for the period April 7, 1989 to November 22, 1989 are given in column 3 of Panel A. For our event 2 (March 30), when Mexico announced its plans to start negotiations with creditor banks in accordance with Brady guidelines, we observe significant and positive reaction from the market. The market's reaction, however, was abrupt and the response was without any delay. Hypotheses 1 and 2 are rejected indicating that abnormal returns on this day for each bank jointly are not equal to zero and are not equal across all multinational banks. The average portfolio return on this day is 3.4 percent. We observe no significant reaction from the non-multinational group and fail to reject H1 and

[16] Demirguc-Kunt and Huizinga (forthcoming) also provide consistent evidence.

H2.

It is interesting to note that at the time of this announcement the enhancement money for the discount bonds was not secured from the IMF and the World Bank. Furthermore, the menu choices were not agreed upon either. The positive reaction of the market participants reflects their optimistic expectation of the outcome of the negotiations.

Our third focal event is the announcement of the initial agreement between Mexico and the steering committee on July 24. We fail to reject H1 for both multinational and non-multinational banks implying that abnormal returns among banks are not significantly different from zero. In other words, market did not show any significant reaction to the announcement of the menu choices to be offered to the creditor banks. This finding shows that the gains from the Mexico agreement were reflected in bank stock prices when negotiations started. The announcement of the agreement did not cause the market participants to revise their expectations.

Our next layer of tests focus on whether or not the market was able to differentiate banks according to their exposure levels or the choices they made to exchange their Mexican debt. First, we estimated equation 2 by using Mexico-debt exposure as EX_i and tested for equality of λ across multinational banks for the second event. Similar to the case in the Brady plan, we reject the equality of λ across multinationals implying that the response was not proportional to exposure levels.

Next, we test whether or not the market participants could predict bank choices and react differently toward banks choosing new instruments or providing new money. We re-estimated equation 1 and tested for equality in average abnormal returns among banks which did not choose DRBs (banks 1, 6 and 7), Citicorp (which provided the majority of the new money) and the rest of the multinationals which chose a combination of DSRBs and DRBs. We fail to reject the equality among these three groups for events 2 and 3.[17] We further examined differences among multinational banks which provided new money as a group (banks 1, 5, 6 and 8) and those that did not. We again failed to reject

[17] The F-statistics are 0.63 and 0.15 for events 2 and 3, respectively.

the equality of average abnormal returns among these two groups.[18]

Analysis of Citicorp's abnormal returns is also instructive. Table 1 shows that Citicorp leads our sample banks in terms of exposure to Mexico. Also, it is the only bank which increased its exposure to the maximum possible (125 percent of the previous exposure) by choosing the new money option. This behavior is consistent with Citicorp's long-term business objectives in Mexico.[19] Abnormal returns for Citicorp reflect that market participants approved this choice. Hence, our results support the hypothesis that creditor banks made the optimal choices that were consistent with their business objectives.

VI. Results For Japanese Banks

Table I also provides exposure and choice information for our sample Japanese banks. It is customary to classify these banks as Long-Term Credit Banks, Trust Banks and City Banks. Traditionally, the first two groups of banks specialize in providing long-term credit whereas City Banks provide short-term loans (Kane, Unal and Demirguc-Kunt, 1991). The average LDC exposure-to-book value ratio for each of these groups are considerably less than the average for U.S. non-multinational group. When the exposure is measured as a percentage of the market value of equity, the Japanese bank groups' average ratio ranges between 5 to 7 percent as opposed to the U.S. multinational and non-multinational ratios of 318.84 percent and 76.39 percent.

Among the three Japanese bank groups, Long-Term Credit Banks and Bank of Tokyo are perceived to be the major banks involved in LDC lending. Trust Banks' access to foreign markets is controlled by the Ministry of Finance. Bank of Tokyo (which is a city bank) has the largest overseas representation and the majority of its earnings come from abroad (Mullineux, 1987). These features are also evident from Table I, where Bank of Tokyo is the bank with the highest exposure followed by Long-Term Credit Banks.

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[18] The F-statistics are 0.73 and 0.51 for events 2 and 3, respectively.

[19] Citicorp is the only sample bank that has an extensive branch network in Mexico. Also, as we will see below, Japanese banks greatly shied away from extending new money to Mexico, but all chose to give new money in the Philippines debt-reduction agreement.

We constructed three equally weighted portfolios representing each group of Japanese banks and one portfolio of all sample Japanese banks to test for structural shifts in the market model. Due to data availability weekly observations are used instead of daily observations. GQSRM results show that the return generating process of Japanese banks as proxied by the market model did not exhibit any significant shift in 1989.

Brady Announcement: Table IV reports estimates of the system of equations given in equation 1 for 21 Japanese banks. We use weekly observations and name the weeks containing our focal announcements as the "event weeks." None of the Japanese banks show a significant reaction on the week ending March 17, and only 5 out of 21 banks show a significant negative reaction on the week ending March 24. While as a group Long-Term Credit Banks and Trust Banks show 3 percent and 6 percent negative abnormal returns, Bank of Tokyo stock does not exhibit any material reaction.[20]

The lack of a strong reaction (relative to U.S. multinationals) may be due to two reasons. First, using weekly rather than daily returns may be blurring the results.[21] Second, and perhaps more importantly, their relatively low LDC exposure accounts for the weak reaction. The overall negative reaction we observe (although only significant for 5 banks) may be attributed to the general perception at the time that Japanese banks had to bear a disproportionate share of the developing country debt burden due to the large trade surplus of Japan. Since both Long-Term Credit Banks and Trust Banks are involved in long-term credit and international lending, and the international activities of Trust Banks are highly influenced by the Ministry of Finance, these two groups of banks may have been perceived to be the best candidates to shoulder the new burden. Hence, both of these two groups exhibit the largest losses.

Hypotheses 1 and 2 are rejected implying that when abnormal returns are examined cross-sectionally some banks exhibited abnormal returns significantly different than zero, and that these

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[20] We reestimated equation 1 in two other ways. First we stacked all U.S. banks and Japanese banks, then only U.S. multinational banks and Japanese banks. In both cases our findings do not change and are similar to those given in Table IV.

[21] We rerun all previous tests for U.S. banks using weekly returns for U.S. banks. Our conclusions for U.S. banks are unchanged when weekly returns are used. Results are available from the authors.

abnormal returns are not equal among Japanese banks. When equation 2 is estimated, the exposure-adjusted coefficients (λs) also show similar results. The equality of λ's across banks is rejected for Japanese banks as well. This implies that factors other than simple exposure information were instrumental for the market participants to evaluate the impact of the Brady announcement.

The Mexico Agreement: Japanese banks' reaction to the Mexico agreement is again quite different than what we observe for U.S. multinational banks. As in the case of Brady announcement, market reaction to announcements relating to the Mexico agreement are not very strong. For the week ending March 31, when Mexico announced its plans to start negotiations with creditor banks, Japanese banks show a negative reaction in general (significant for only 3 banks). This indicates that the market still anticipated that the Brady Plan or agreements negotiated under this U.S. initiated plan would affect the Japanese banks adversely. In other words, the market participants may have expected that Japanese banks may be coerced into signing an agreement that was not necessarily in their best interests.

However, results for the week ending July 28 show the market's reevaluation. Indeed, Japanese banks experience an overall positive reaction (significant for 2 banks) at this date. These observations are consistent with the argument that the announcement of the menu choices did not disadvantage the Japanese banks, at least not to the extent anticipated by the market earlier in the negotiations. This resulted in a positive adjustment by the market participants. U.S. banks, however, showed no reaction at this point.

To test whether or not bank choices could be predicted and reflected in prices, we formed two groups from Japanese banks. The first group consisted of banks that chose no DSRBs and the second group contained the rest excluding Daiwa Bank (the only Japanese bank that chose to give new money). We could not reject equality of these two groups for both weeks.[22] Again, we do not have any evidence that bank choices were priced differentially by the market participants.

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[22] The F-values for the weeks ending April 2 and July 30 are 0.01 and 0.01, respectively.

VII. Conclusions

This paper investigates the effect of developing-country, debt-reduction endeavors on the market value of two major creditor group: U.S. and Japanese banks. Our estimates of abnormal returns indicate that stock price reaction of different groups of banks to our focal events varied widely. U.S. multinationals showed the strongest reaction among all banks to the Brady announcement and the Mexican agreement. U.S. non-multinationals do not appear to be significantly affected by this paper's international-debt related events.

The Japanese experience was quite different from that of the U.S. banks. The reaction experienced by all three groups of Japanese banks was much weaker than that of U.S. multinationals. Long-Term Credit Banks and Trust Banks appear to be the bank groups that show responsiveness to our focal events. Bank of Tokyo had the highest LDC-debt exposure among Japanese banks it showed no reaction to our focal events. The Brady announcement and the initial Mexican announcement have a negative effect on Japanese bank stock returns. We interpret this to be a reflection of the negative expectations that a U.S.-initiated debt-reduction strategy would not be favorable for Japanese banks. Indeed, it is only after the menu choices are announced, the market recognizes that the Japanese banks were treated fairly and corrects itself.

Our cross-sectional analysis first shows that market reactions experienced by banks were not necessarily proportional to their exposure levels. This constitutes evidence that the impact of our focal events was different per unit of exposure across our sample banks which is consistent with James' (1990) heterogenous-creditor hypothesis for U.S. banks. Second, we failed to find any differential reaction to banks making different menu choices. This may constitute evidence that creditor banks were able to negotiate the menu choices in according to their best interests. Also, the menu choices were optimal and consistent with each bank's business objectives.

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Table I
Exposure Levels and Menu Choices in 1989 Mexico Agreements of sample banks

Choices are in US currency. All facilities chosen in other currency are converted to US Dollar using the exchange rate at the end of 1989. The options are New money facilities (NM), Par bonds (DSRB) and Discount bonds (DRB). Exposure is the percentage of common equity that equals the outstanding loans.

Bank Name	Bank Choices in the Mexico Agreement			Mexico Exposure Based on		LDC Exposure Based on	
	DSRB ($Mill)	DRB ($Mill)	NM ($Mill)	Book Value (%)	Market Value (%)	Book Value (%)	Market Value (%)
U.S. Multinational Banks							
1. BankAmerica Corp	869	0	100	30.58	56.06	263.2	482.5
2. Bankers Trust NY	771	259	0	33.40	41.22	114.3	141.0
3. Chase Manhattan	833	346	0	27.85	64.41	189.9	418.8
4. Chemical Bank	939	309	0	35.66	81.98	192.3	442.0
5. CitiCorp	6	5	394	16.11	21.41	166.3	220.9
6. Continental Bank Corp	178	0	9	13.36	31.00	198.1	459.7
7. First Chicago	387	0	0	16.32	24.34	107.7	160.7
8. Manufacturers Hanover	662	639	9	51.70	133.82	288.8	747.6
9. J.P. Morgan Co.	264	265	0	11.64	10.45	83.1	74.6
10.Security Pacific	1	15	0	6.49	6.55	23.8	40.6
Average				24.31	47.12	162.75	318.84
U.S. Non-Multinational Banks							
1. Bank of New York	0	209	0	11.53	28.87	95.9	240.2
2. First Fidelity Corp	36	29	0	5.35	4.47	11.7	9.8
3. First Pennsylvania Corp	78	0	0	22.21	19.74	141.0	125.3
4. Manufacturers National	0.5	0	0	0.09	0.08	27.2	24.7
5. Mellon Bank Corp	215	0	0	17.85	27.37	165.9	254.4
6. Midlantic Corp	0	19	0	2.19	1.94	6.7	5.9
7. National City Corp	82	0	0	6.19	4.40	14.1	10.0
8. Republic NY Corp	31	39	2	6.89	7.46	39.0	42.2
9. Southeast Banking Corp	0	32	0	6.49	6.55	33.2	33.5
10. Wells Fargo & Co	33	11	0	1.94	1.66	21.0	17.9
Average				8.07	10.25	55.57	76.39

Bank Name	Bank Choices in the Mexico Agreement			Mexico Exposure Based on		LDC Exposure Based on	
	DSRB ($Mill)	DRB ($Mill)	NM ($Mill)	Book Value (%)	Market Value (%)	Book Value (%)	Market Value (%)
Japanese Banks							
Long-term Credit Banks							
1. Industrial Bank of Japan	0	378	0	6.70	0.78	22.76	2.67
2. Long-Term Credit Bank of Japan	1	366	0	11.14	1.65	42.82	6.33
3. Nippon Credit Bank	0	276	0	14.53	2.35	44.69	7.25
Average				10.79	1.59	36.76	5.42
City Banks							
4. Dai-Ichi Kangyo Bank	284	523	0	10.89	1.60	25.65	3.76
5. Hokkaido Takushoku Bank	0	217	0	18.98	4.47	44.64	10.50
6. Bank of Tokyo	326	761	0	29.38	6.08	98.40	20.37
7. Mitsui Bank	31	292	0	8.34	1.57	25.44	4.78
8. Mitsubishi Bank	185	434	0	8.34	1.42	25.09	4.28
9. Fuji Bank	190	344	0	6.50	1.08	22.51	3.73
10.Sumitomo Bank	168	703	0	11.64	1.80	26.79	4.13
11.Daiwa Bank	5	211	4	11.36	2.01	22.98	4.06
12.Sanwa Bank	174	414	0	9.25	1.60	27.00	4.65
13.Tokai Bank	195	455	0	15.96	2.75	40.44	6.96
14.Kyowa Bank	0	214	0	12.07	2.92	25.29	6.12
15.Saitama Bank	9	188	0	11.39	2.69	28.80	6.81
Average				12.84	2.50	34.42	6.68
Trust Banks							
16.Mitsui Trust & Bank	41	192	0	10.37	1.87	33.19	5.98
17.Mitsubishi Trust & Bank	87	202	0	7.65	1.55	19.07	3.85
18.Sumitomo Trust & Bank	0	151	0	4.89	0.98	18.53	3.73
19.Yasuda Trust & Bank	0	194	0	9.49	2.35	34.73	8.60
20.Nippon Trust Bank	0	8	0	2.82	0.47	12.73	2.14
21.Toyo Trust & Banking	14	91	0	7.02	1.35	23.27	4.48
Average				7.04	1.43	23.59	4.80

Table II
Abnormal Returns of U.S. Sample Banks in the vicinity of the Brady Announcement

$$R_{it} = \alpha_i + \beta_i R_{mt} + \gamma_t D_t + e_{it}$$
$$R_{it} = \alpha_i + \beta_i R_{mt} + \lambda_t D_t EX_t + e_{it}$$

For multinational banks the return series cover period 12/28/88 through 4/6/89. For non-multinational banks the period covered is 12/28/88 through 11/26/89. The entries corresponding to H1, H2 and H3 are the F-statistics of the hypotheses tested. H1 is the hypothesis that the γ of each bank is equals to zero on the event day. H2 is the hypothesis that the γ are equal across all banks on the event day. H3 is the hypothesis that the λ re equal across all banks on the event day.

Panel A: Multinational Banks

Multi-national Bank	α_i	β_i	γ at 3/13	γ at 3/14	γ at 3/15	γ at 3/16	γ at 3/17	γ at 3/20	γ at 3/21	γ at 3/22	λ at 3/16	λ at 3/17
1	0.21	1.33	-0.57	-0.75	0.64	1.57	4.43**	0.92	1.18	1.91	0.006	0.016**
2	0.05	0.91	0.08	0.35	0.41	3.14**	3.66**	-0.52	0.93	-1.34	0.027**	0.033**
3	0.26	0.95	1.80	0.19	-0.10	0.83	2.65**	0.06	0.21	-0.39	0.004	0.014**
4	0.10	0.53	-0.16	1.21	1.45	3.32**	5.31***	-1.75	0.51	0.16	0.016**	0.029***
5	0.03	1.18	2.68	1.53	-1.15	5.21***	4.49**	-1.33	0.98	-1.06	0.030***	0.028***
6	-0.09	0.98	-0.07	0.21	1.92	5.59***	0.90	-0.56	0.43	-1.03	0.028***	0.004
7	0.25	1.08	0.52	-0.53	0.86	0.99	5.62***	0.24	-0.91	-2.20**	0.008	0.053***
8	0.21	0.85	-0.37	-0.52	0.40	5.19***	2.67	-2.22	0.28	0.67	0.018***	0.010*
9	0.02	0.91	0.17	0.55	1.60	3.87***	5.20***	-0.05	0.38	-1.68	0.045***	0.063***
10	0.04	1.18	0.64	-1.25	0.33	2.37**	1.73	1.14	-0.36	-0.43	0.098**	0.063
Average			0.47	0.10	0.64	3.21	3.67	-0.39	0.36	-0.54	0.03	0.03
H1			1.04	0.69	0.91	4.23***	3.26***	1.06	0.33	1.11		
H2			1.11	0.57	0.96	4.34***	1.66*	0.96	0.36	1.17		
H3											4.24***	3.07***

* significant at 10 percent. ** significant at 5 percent. *** significant at 1 percent.

Table II
Panel B: Non-multinational Banks

Non-Multinational Bank	α_i	β_i	γ at 3/13	γ at 3/14	γ at 3/15	γ at 3/16	γ at 3/17	γ at 3/20	γ at 3/21	γ at 3/22
1	-0.04	1.48	0.50	1.26	0.50	0.50	1.86	-0.48	-0.37	1.36
2	-0.15	1.74	0.07	-0.20	0.09	-1.08	-0.01	-0.28	-1.12	0.33
3	0.05	0.78	-1.25	-0.02	-0.27	0.58	0.05	0.54	-0.26	0.04
4	0.05	0.55	0.35	0.53	0.35	-0.85	-0.41	0.35	-0.76	0.28
5	-0.02	1.33	0.57	-0.37	0.57	1.22	-0.38	0.56	0.11	0.16
6	-0.09	0.93	-0.49	-0.19	0.14	-0.66	-0.91	-0.22	0.16	-0.15
7	0.04	0.65	0.54	-0.39	-0.99	0.04	-0.34	-0.74	-0.22	-0.37
8	-0.00	0.68	0.09	0.03	-0.46	0.25	0.66	-0.33	-0.19	-0.77
9	-0.01	0.89	-0.74	0.04	1.23	-0.41	-0.83	-0.38	-0.12	-1.47
10	0.03	1.23	0.79	-0.35	0.03	1.88**	1.36	0.94	-0.37	-0.25
Average			0.04	0.03	0.12	0.15	0.11	-0.00	-0.31	-0.08
H1			0.33	0.26	0.30	0.91	0.80	0.28	0.22	0.41

** significant at 5 percent.

Table III
Abnormal Returns of U.S. Banks on Significant Days Relating to the Mexico Agreement

$$R_{it} = \alpha_i + \beta_i R_{mt} + \gamma_i D_t + e_{it}$$

For multinational banks the abnormal returns for the Mexico Announcement are estimated covering period from 12/28/88 through 4/6/89. Others are estimated using period from 4/7/89 through 11/22/89. For non-multinational banks all events are estimates using sample period from 12/28/88 through 11/26/89.
The entries correspond to H1 and H2 are the F-statistics of the hypotheses tested. H1 is the hypothesis that the abnormal return of each bank equals to zero at the event day. H2 is the hypothesis that the abnormal returns are equal across all banks at the event day.

Bank	α_i	β_i	Mexico Announcement	Initial Agreement
			4/20/89	7/24/89
Panel A: Multinational Banks				
1	-0.01	2.26	2.56	3.60**
2	-0.04	2.15	5.47***	1.17
3	-0.09	1.97	3.77***	1.92
4	-0.14	2.21	5.24***	2.08*
5	-0.11	3.05	3.67**	2.25
6	-0.08	2.09	4.59***	0.41
7	-0.07	1.77	1.19	0.52
8	-0.05	1.69	4.38***	1.38
9	-0.00	1.66	2.73**	0.68
10	-0.05	1.87	0.37	1.58
Average			3.40	1.56
H1			3.68***	0.83
H2			2.85***	
Panel B: Non-multinational Banks				
1	-0.04	1.48	0.72	0.39
2	-0.15	1.74	1.62	0.86
3	0.05	0.78	0.98	-0.65
4	0.05	0.55	-0.02	-0.07
5	-0.02	1.33	0.55	0.83
6	-0.09	0.93	1.15	0.17
7	0.04	0.66	2.38**	0.23
8	-0.00	0.68	0.33	1.06
9	-0.01	0.89	0.08	-1.01
10	0.03	1.23	1.74*	0.31
Average			0.95	0.21
H1			1.13	0.37

* significant at 10 percent. ** significant at 5 percent. *** significant at 1 percent.

Table IV
Abnormal Returns of Japanese Banks in the vicinity of the Brady Announcement

$$R_{it} = \alpha_i + \beta_i R_{mt} + \gamma_i D_t + e_{it}$$
$$R_{it} = \alpha_i + \beta_i R_{mt} + \lambda_i D_t EX_t + e_{it}$$

Weekly data are used to estimate the parameters with sample period covering the whole 1989. The entries corresponding to H1, H2 and H3 are the F-statistics of the hypotheses tested. H1 is the hypothesis that the γ of each bank equals to zero on the event week. H2 is the hypothesis that the γ are equal across all banks on the event week. H3 is the hypothesis that the λ are equal across all banks on the event week.

Japanese Bank	α_i	β_i	Brady Announcement				Miyao Announcement	Initial Agreement
			γ at week ended 3/17	γ at week ended 3/24	λ at week ended 3/17	λ at week ended 3/24	γ at week ended 2/31	γ at week ended 7/28
Long-term Credit Banks								
1	0.45	0.67	1.31	-5.92*	0.058	-0.260*	-1.07	-0.48
2	0.00	0.97	4.78	-6.63**	0.112	-0.155**	-2.96	-1.33
3	0.32	0.56	-2.03	-0.85	-0.045	-0.019	0.10	3.08
Averge			1.35	-4.47	0.04	-0.14	-1.31	0.42
City Banks								
4	-0.44	0.77	-1.45	0.76	-0.056	0.030	0.64	1.08
5	0.61	0.49	0.41	-1.43	0.009	-0.032	-5.36	2.05
6	0.14	0.22	0.42	0.45	0.004	0.005	-0.27	0.97
7	0.09	0.25	-0.37	-0.78	-0.015	-0.031	0.22	5.19***
8	-0.42	0.68	0.84	-0.01	0.033	-0.000	0.07	0.83
9	-0.22	0.46	0.96	-1.32	0.042	-0.059	-0.61	2.09
10	-0.34	0.71	3.97	1.38	0.148	0.052	-2.56	3.48
11	0.04	0.30	1.81	-4.69**	0.079	-0.204**	-3.23*	2.85
12	-0.58	1.14	-3.32	2.53	-0.123	0.094	-0.41	1.64
13	-0.21	0.77	-0.46	2.23	-0.011	0.055	-3.24**	3.05**
14	0.24	0.42	0.93	-4.58*	0.037	-0.181*	0.34	-3.23
15	0.14	0.33	-0.11	1.15	-0.004	0.040	-2.87	2.29
Averge			0.30	-0.36	0.01	-0.02	-1.44	1.86
Trust Banks								
16	-0.63	0.91	-2.14	-4.47	-0.065	-0.135	0.63	1.77
17	-0.50	0.74	-0.72	-3.64	-0.038	-0.191	-2.86	4.73
18	-0.79	1.26	-1.34	-1.85	-0.072	-0.100	-1.40	5.25
19	-0.37	1.06	-2.08	-5.70***	-0.060	-0.164***	0.91	3.20
20	0.16	1.01	-6.95	-2.32	-0.546	-0.182	-3.06	5.50
21	-0.49	0.88	-1.88	-2.76	-0.081	-0.119	-3.77**	3.78
Average			-2.52	-3.46	-0.14	-0.15	-1.59	4.04
H1			2.44***	4.24***			1.75**	2.95***
H2			2.56***	4.24***			1.79**	2.66***
H3					2.371***	4.419***		

* significant at 10 percent. ** significant at 5 percent. *** significant at 1 percent.

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